

CLAIMS

1. A method of generating a flame in a combustion zone of a rotary kiln by means of a burner comprising at least a burner tube extending into the kiln from outside of the kiln and means for introducing fuel into the burner tube and means for leading primary air via the burner tube into the combustion zone of the kiln, characterized in that flue gas generated in a gas turbine connected to the burner is used as primary air.
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2. A method according to claim 1, characterized in that the temperature of the flue gas of the turbine is 400-800 °C.
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3. A method according to claim 1, characterized in that the fuel is fed into the discharge end of the burner tube.
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4. A method according to claim 1, characterized in that the fuel is fed into the front end of the burner tube, wherein it is mixed with primary air entering from the gas turbine.
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5. A method according to claim 1, characterized in that the primary air from the gas turbine is fed via a connecting tube so that primary air is fed into the burner tube tangentially and that fuel is fed into the connecting tube, whereby a cyclone-shaped intermediate burner is formed in the burner tube.
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6. A burner for generating a flame in a combustion zone of a rotary kiln, said burner comprising at least a burner tube (4) extending into the kiln from outside the kiln and means (3) for feeding fuel into the burner tube and means for leading primary air via the burner tube into the combustion zone of the kiln, characterized in that the burner is connected to a gas turbine (1, 2) via a connecting tube (7) for leading flue gas generated in the gas turbine into the burner tube as primary air.
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7. A burner according to claim 6, characterized in that the connecting tube (7) is inclined in relation to the burner tube.
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8. A burner according to claim 6, characterized in that the connecting tube (7) is positioned axially in relation to the burner tube.
- 5 9. A burner according to claim 6, characterized in that the connecting tube (7) is tangential in relation to the burner tube.
- 10 10. A burner according to claim 6 or 9, characterized in that the burner further comprises means for introducing fuel into the connecting tube for increasing the temperature in the burner tube.
11. A burner according to any of the preceding claims 6 – 10, characterized in that the burner tube (4), connecting tube (7) and gas turbine (1, 2, 11) are constructed as a unit, the position of which in relation to the kiln is adjustable.
- 15 12. A burner according to claim 11, characterized in that said unit further comprises a cooling air fan (6).